

What is claimed is:

1. A computational component for performing a method, the method comprising:

detecting tones comprising a first TTY character, said tones generated by a first TTY device according to a first TTY protocol;

5 determining whether a duration of said detected tones express a TTY protocol that is incompatible with a TTY protocol used by a receiving second TTY device; and

in response to determining that said second TTY device uses a second TTY protocol that is incompatible with said first TTY protocol, describing a duration of said detected TTY tones in a format that is compatible with said second TTY protocol.
2. The method of Claim 1, further comprising, in response to said determining that said second TTY device uses a second TTY protocol that is incompatible with said first TTY protocol, describing a frequency of said detected TTY tones in a format that is compatible with said second TTY protocol, wherein said
- 5 described frequency is the same as a frequency of said detected TTY tones.
3. The method of Claim 1, wherein said first TTY protocol is capable of transmitting characters at a faster rate than said second TTY protocol, wherein said first TTY device is capable of receiving and transmitting characters at a faster rate than said second TTY device can receive and display said transmitted characters, said method
- 5 further comprising:

transmitting at least said first TTY character as a description of said detected TTY tones from said first TTY device to said second TTY device; and

buffering at least said first TTY character transmitted by said first TTY device.

4. The method of Claim 3, further comprising:

displaying a message to a user of said first TTY device indicating that delivery of said transmission of at least said first TTY character to said second TTY device is in progress.

5. The method of Claim 4, wherein said displaying a message to a user of said first TTY device indicating that delivery of said transmission of at least said first TTY character to said second TTY device is in progress is generated in response to detection of a “go ahead” message entered at said first TTY device.

6. The method of Claim 4, wherein said displaying a message to a user of said first TTY device indicating that delivery of said transmission of at least said first TTY character to said second TTY device is in progress is generated in response to detection of a pause in an entry of characters at said first TTY device.

7. The method of Claim 4, further comprising:

determining an amount of time required to complete delivery of said transmission of a group of characters, wherein said displaying a message to a user of said first TTY device indicating that a delivery of said transmission of at least said first TTY character

5 to said second TTY device is in progress comprises displaying a message providing an estimate of an amount of time until all of said group of characters can be displayed at said second TTY device.

8. The method of Claim 3, wherein said buffering is performed proximate to one of said sending TTY device and said receiving TTY device.

9. The method of Claim 1, wherein said first TTY protocol comprises a 50 Baud TTY protocol and said second TTY protocol comprises a 45.45 Baud TTY protocol.

10. The method of Claim 1, wherein said detecting tones comprising a first TTY character comprises detecting a description of said tones.

11. The method of Claim 1, wherein said first and second TTY protocols comprise half duplex protocols that do not provide for handshaking procedures, carrier tones, or error correction.

12. The method of Claim 1, wherein said computational component comprises a computer readable storage medium containing instructions for performing the method.

13. The method of Claim 1, wherein said computational component comprises a logic circuit.

14. A system capable of supporting incompatible TTY communication protocols, comprising:

means for receiving a first selected character and for generating a first sequence of tones encoding said first selected character in accordance with a first TTY protocol;

5 means for receiving a second sequence of tones encoding said first selected character in accordance with a second TTY protocol, wherein a duration of at least some tones included in said second sequence of tones is different than the duration of at least some tones included in said first sequence of tones;

10 means for expressing each tone within said first sequence of tones as a description including a tone frequency and a tone duration;

means for determining that said first TTY protocol is incompatible with said second TTY protocol; and

15 means for translating said description of said first sequence of tones from said first TTY protocol to said second TTY protocol by altering said tone duration component of said description, wherein said described tone frequency is not altered.

15. The system of claim 14, wherein said tone duration according to said first TTY protocol is less than a tone duration of a corresponding tone according to said second TTY protocol, said system further comprising:

means for buffering said first sequence of tones.

16. The system of Claim 15, further comprising:  
means for indicating to a user of said first TTY device that a delivery of a  
transmission of said first selected character is in progress.

17. A method for enabling interoperability between different character transmission protocols, comprising:

detecting a first sequence of tones expressing a first character;

5 determining that a sending device uses a protocol for expressing characters that is different than a protocol for expressing characters that is used by a receiving device; and

generating a description of said first sequence of tones, wherein said description of said tones includes a description of a frequency and a duration of each tone in said first sequence of tones, wherein said frequency and said duration of each tone is expressed according to said protocol used by said receiving device, wherein a duration of at least a  
10 first tone included in said first sequence of tones is described as being different than a detected duration of said at least a first tone.

18. The method of Claim 17, further comprising:

transmitting said description of said first sequence of tones expressed according to said protocol used by said receiving device.

19. The method of Claim 17, further comprising:

buffering said description of said first sequence of tones, wherein said protocol used by said sending device requires less time to transmit a character than a protocol used by said receiving device.

20. The method of Claim 19, wherein said buffering is performed in a sending communication server.

21. The method of Claim 19, wherein said buffering is performed in a receiving communication server.

22. The method of Claim 17, further comprising providing a signal to a user of said first device indicating that delivery of a transmission of a message comprising said first character is in progress.

23. The method of Claim 22, wherein said signal indicating that delivery of a transmission of a message comprising said first character to second TTY device is in progress is provided in response to detecting a pause in an entry of characters for transmission at said first device of at least a first length.

24. The method of Claim 22, wherein said signal indicating that delivery of a transmission of a message comprising said first character is in progress is provided in response to detecting a go ahead signal entered at said first device

25. The method of Claim 17, wherein said determining that a sending device uses a protocol for expressing characters that is different than a protocol for expressing characters that is used by a receiving device is performed by a sending communication server, and wherein said generating a description of said first sequence of tones expressed according to said protocol used by said receiving device is performed by said sending communication server.

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26. The method of Claim 17, wherein said determining that a sending device uses a protocol for expressing characters that is different than a protocol for expressing characters that is used by a receiving device is performed by a receiving communication server, and wherein said generating a description of said first sequence of tones expressed  
5 according to said protocol used by said receiving device is performed by said receiving communication server.



27. A system for facilitating transmission of characters between communication devices, comprising:

a first TTY device, wherein said first TTY device is operable to transmit and receive characters according to a first TTY protocol;

5 a first communication server, wherein said first TTY device is interconnected to said first communication server, and wherein each tone within a sequence of tones encoding a character and received from said first TTY device is expressed as a description of tone frequency and duration;

10 a second TTY device, wherein said second TTY device is operable to transmit and receive characters according to a second TTY protocol;

a second communication server, wherein said second TTY device is interconnected to said second communication server, and wherein each tone within a sequence of received tones is provided to said second TTY device at a frequency and duration required by said second TTY protocol;

15 a communication link interconnecting said first and second communication servers, wherein one of:

1) in response to said first communication server determining that said first TTY protocol is different than said second TTY protocol, said first communication server describes each tone within said sequence of tones at a frequency and duration required by said second TTY protocol, wherein a duration of at least some of said tones required by said first protocol is different than said duration required by said second protocol, and

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25                    2)            in response to said second communication server receiving a  
description of said tones within said sequence of tones according to  
said first TTY protocol, said second communication server provides  
said tones to said second TTY device at said frequency and duration  
required by said second TTY protocol, wherein a duration of at least  
some of said tones is different than a duration indicated by said  
30                    received description of said tones

28.        The system of Claim 27, further comprising a buffer, wherein descriptions  
of tones are temporarily stored in order to adapt transmission rates of said first and  
second TTY devices to one another.

29.        The system of Claim 28, wherein said buffer is provided as part of at least  
one of said first and second communication servers, and wherein feedback regarding a  
status of a transmission is provided to a user of one of said first and second TTY device.

30. A computational component for performing a method, the method comprising:

detecting a first set of tones comprising a first TTY character, said tones generated by a first TTY device according to a first TTY protocol;

5 determining that a receiving second TTY device uses a second TTY protocol that is incompatible with said first TTY protocol; and

generating a second set of tones comprising said first TTY character, wherein said second set of tones are generated according to said second TTY protocol.

31. The method of Claim 30, wherein said detecting a first set of tones comprising a first TTY character comprises receiving a description of a first set of tones comprising a first TTY character.

32. The method of Claim 30, wherein said generating a second set of tones is performed in response to receiving a description of said first set of tones in accordance with said first TTY protocol.

33. The method of Claim 30, further comprising:  
providing said second set of tones to a second TTY device.

34. The method of Claim 30, further comprising:  
buffering at least some of said first set of tones comprising said first TTY character.

35. The method of Claim 30, further comprising:  
providing an indication to a user of said first TTY device that a delivery of said first set of tones comprising said first TTY character is in progress.

36. The method of Claim 35, wherein said indication is provided in response to detection of a “go ahead” message entered at said first TTY device.

37. The method of Claim 35, wherein said indication is provided in response to detection of a pause in an entry of characters at said first TTY device.

38. The method of Claim 30, wherein said computational component comprises a computer readable storage medium containing instructions for performing the method.

39. The method of Claim 30, wherein said computational component comprises a logic circuit.

40. A system for enabling interoperability between TTY devices, comprising:  
a first TTY device, wherein said first TTY device is operable to transmit and  
receive characters according to a first TTY protocol;

5 a first communication server, wherein said first TTY device is interconnected to  
said first communication server, and wherein each tone within a sequence of tones  
encoding a character that is received from said first TTY device is expressed as a  
description of tone frequency and duration according to said first TTY protocol;

a second TTY device, wherein said second TTY device is operable to transmit  
and receive characters according to a second TTY protocol; and

10 a second communication server, wherein said first communication server is  
interconnected to said second communication server, wherein said second TTY device is  
interconnected to said second communication server, and wherein each tone within a  
sequence of received tones is provided to said second TTY device at a frequency and  
duration according to said second TTY protocol.

41. The system of Claim 40, further comprising a buffer, wherein descriptions  
of tones are temporarily stored in order to adapt transmission rates of said first and  
second TTY devices to one another.

42. The system of Claim 41, wherein said buffer is provided as part of at least  
one of said first and second communication servers, and wherein feedback regarding a  
status of a delivery of a character is provided to a user of one of said first TTY device and  
said second TTY device.